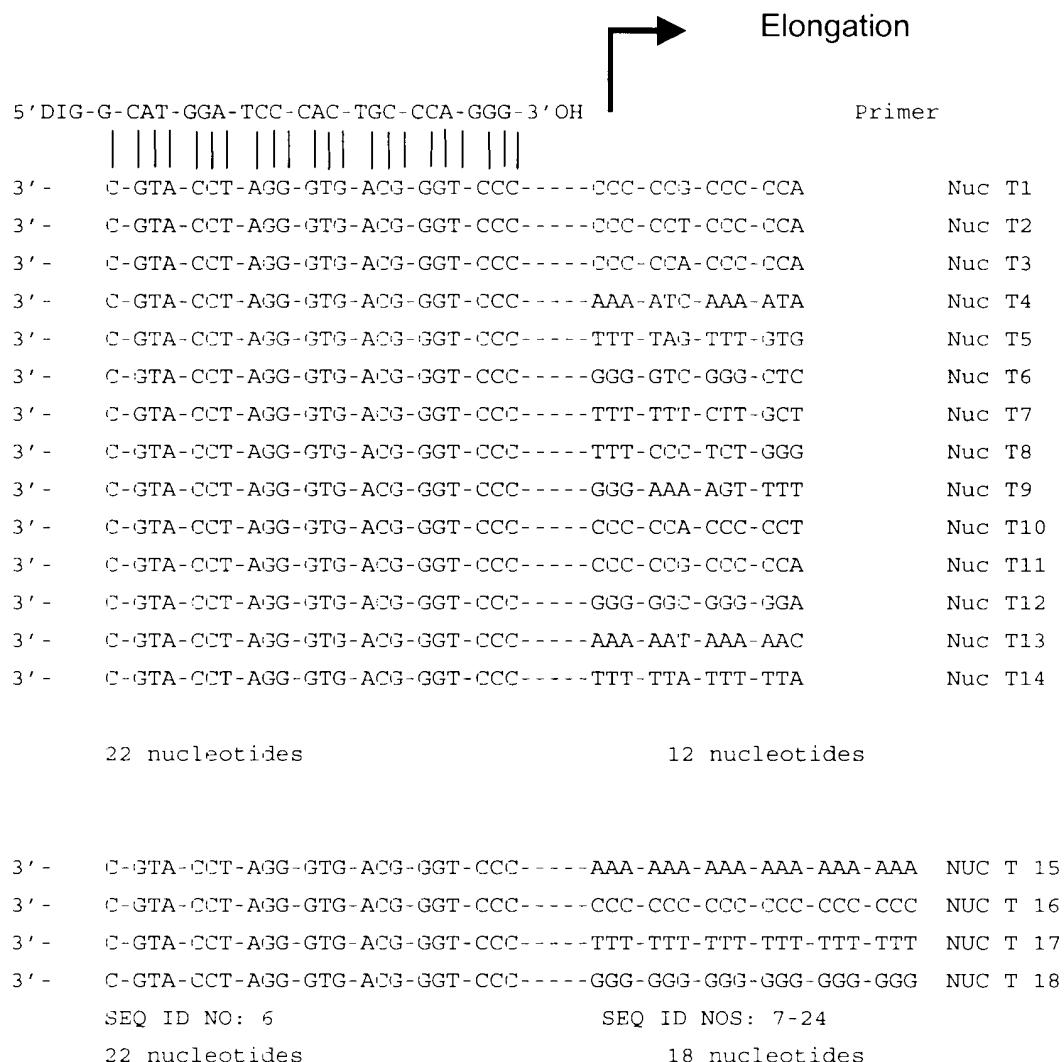


10/019850

Fig. 1a: Nuc template/ primer systems:



10/01/1985

Fig.1b: Cassettes 1-10 template/ primer systems:

GTAAAGATTGCCTCTAGCGG	CGTA	CAS 1
GTAAAGATTGCCTCTAGCGG	CGTA-GTAC	CAS 2
GTAAAGATTGCCTCTAGCGG	CGTA-GTAC-TAGC	CAS 3
GTAAAGATTGCCTCTAGCGG	CGTA-GTAC-TAGC-ATCG	CAS 4
GTAAAGATTGCCTCTAGCGG	CGTA-GTAC-TAGC-ATCG-CATG	CAS 5
GTAAAGATTGCCTCTAGCGG	CGTA-GTAC-TAGC-ATCG-CATG-CAGT	CAS 6
GTAAAGATTGCCTCTAGCGG	CGTA-GTAC-TAGC-ATCG-CATG-CAGT-TGCA	CAS 7
GTAAAGATTGCCTCTAGCGG	CGTA-GTAC-TAGC-ATCG-CATG-CAGT-TGCA-TGAC	CAS 8
GTAAAGATTGCCTCTAGCGG	CGTA-GTAC-TAGC-ATCG-CATG-CAGT-TGCA-TGAC-CAGT	CAS 9
SEQ ID NO: 25		
GTAAAGATTGCCTCTAGCGG AATTCTAACGGAGATGCC-3'	CGTA-GTAC-TAGC-ATCG-CATG-CAGT-TGCA-TGAC-CAGT-GATC	CAS 10



Primer-5' DIG

SEQ ID. NO: 26



Elongation

Fig. 2

Lane number																
<i>Taq-Pol</i>		<i>Tgo exo⁻ polymerase</i>														
0,1 u		0,1u		1 u		0,1u		1u		0,1u		1 u		1 u		
T 17		T 17		T 16		T 17		T 16		T 8		T 3		T		
natural dNTP's		AA		AA		AAA	AAA	AAAAA	AAAAA	BB	BB	BB	BBBB	D	D	EEFF
C	C	BB		BB		BB	BB	BB	BB	B	B	BB	BBBB	D	D	EEFF

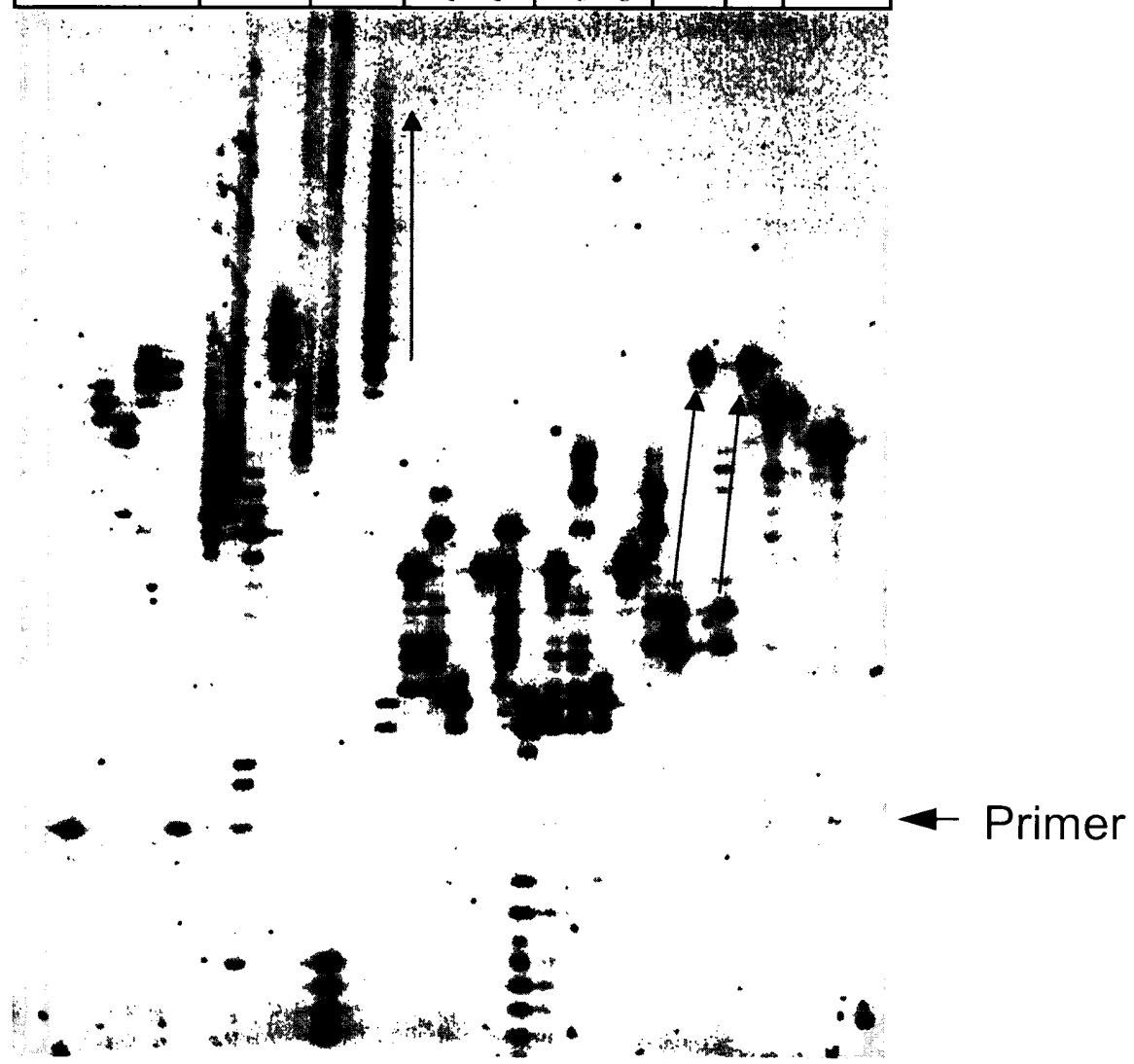
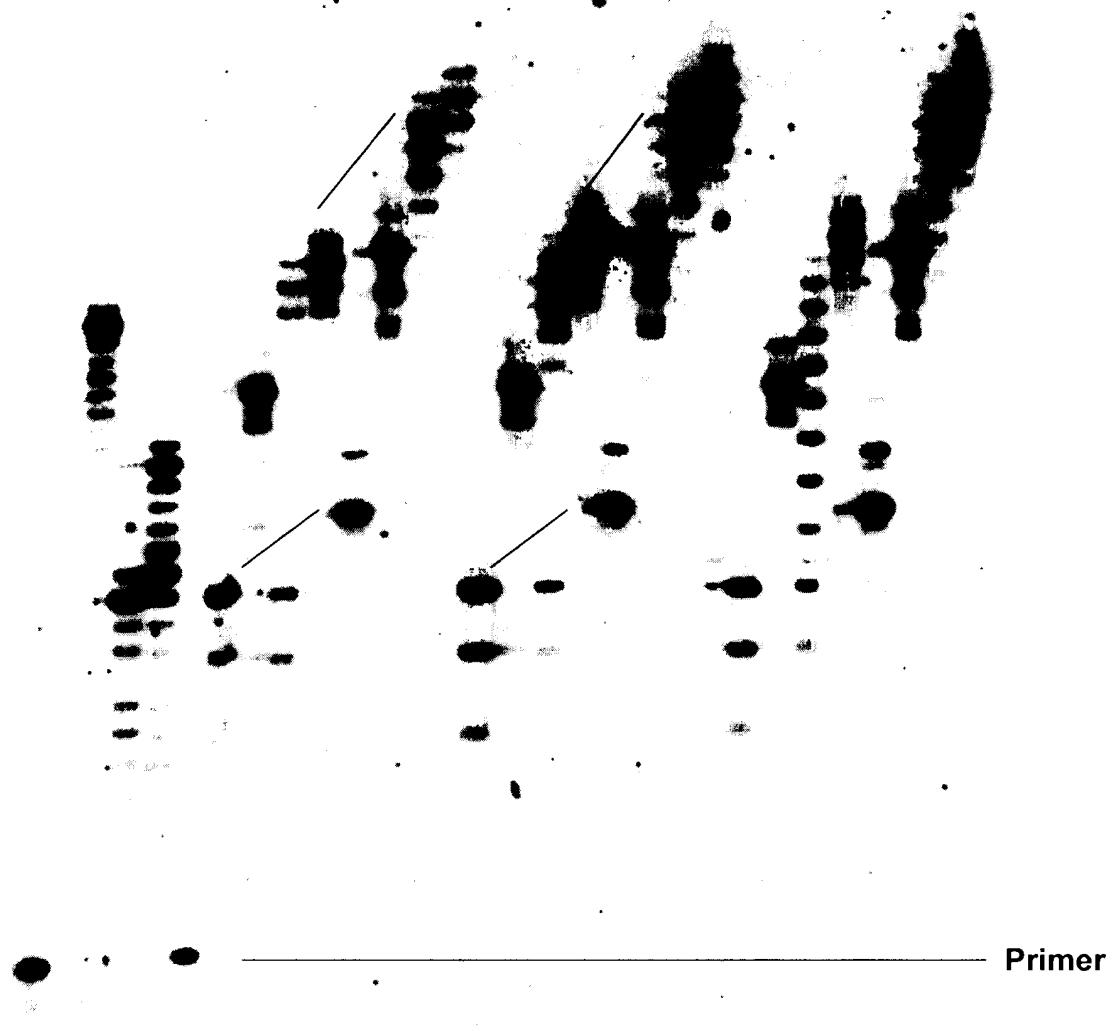


Fig. 3

1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	
2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	
Controls	Tgo exo' polymerase 0.1 unit/reaction				Tgo exo' polymerase 1 unit/reaction										
Taq pol	T4	T15	T4	T15	T4	T15	T4	T15	T4	T15	T4	T15	T4	T15	
Reaction time: 30 min										60 min					
regular dNTP's	Rho-green-dUTP	Rho-green-X-dUTP	Rho-green-dUTP	Rho-green-X-dUTP	Rho-green-dUTP	Rho-green-X-dUTP	Rho-green-dUTP	Rho-green-X-dUTP	Rho-green-dUTP	Rho-green-X-dUTP	Rho-green-dUTP	Rho-green-X-dUTP	Rho-green-dUTP	Rho-green-X-dUTP	

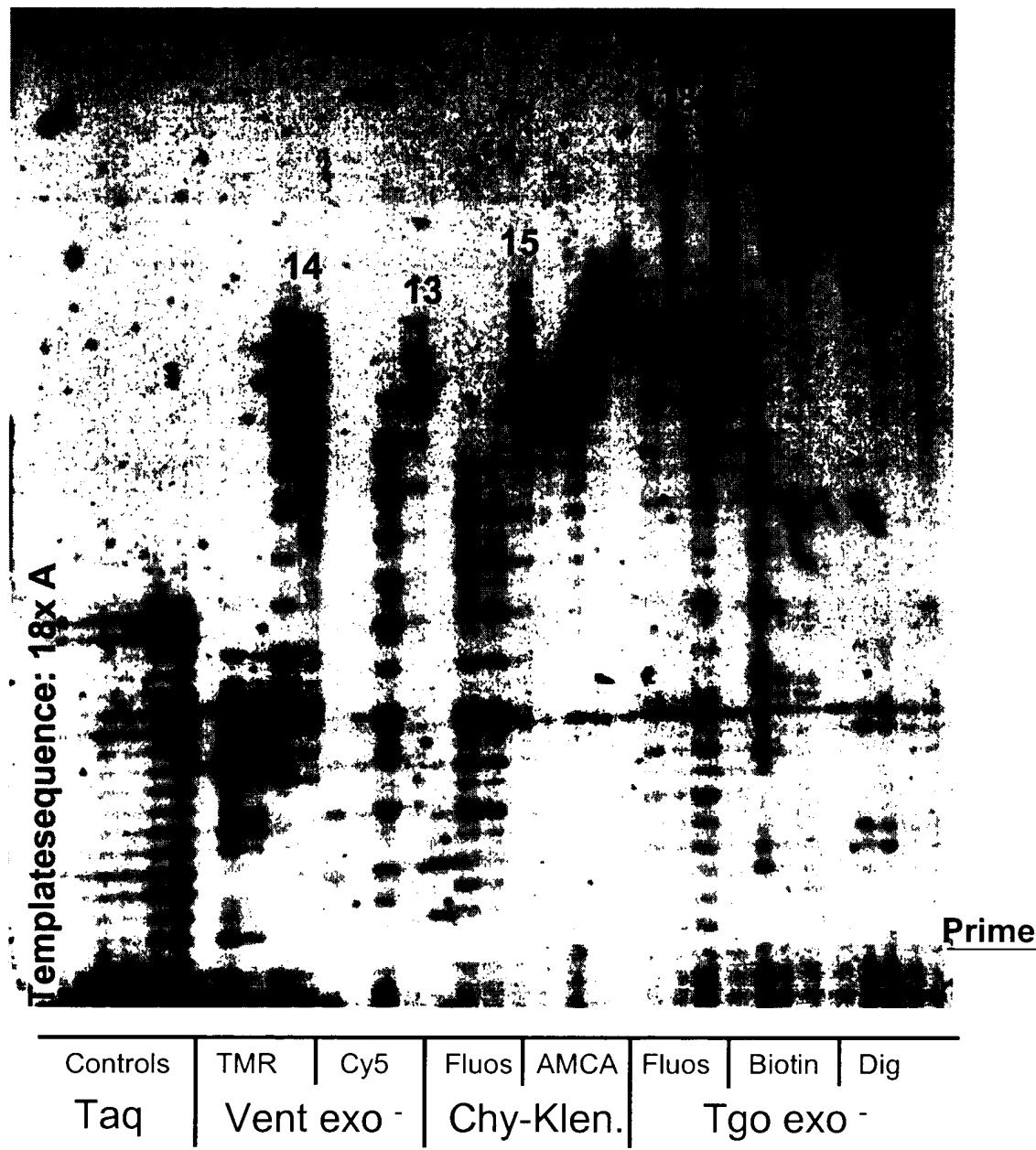


Primer

10/019850

Fig. 4

1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33
2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34



10/01/89

Fig. 5

1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35
2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34

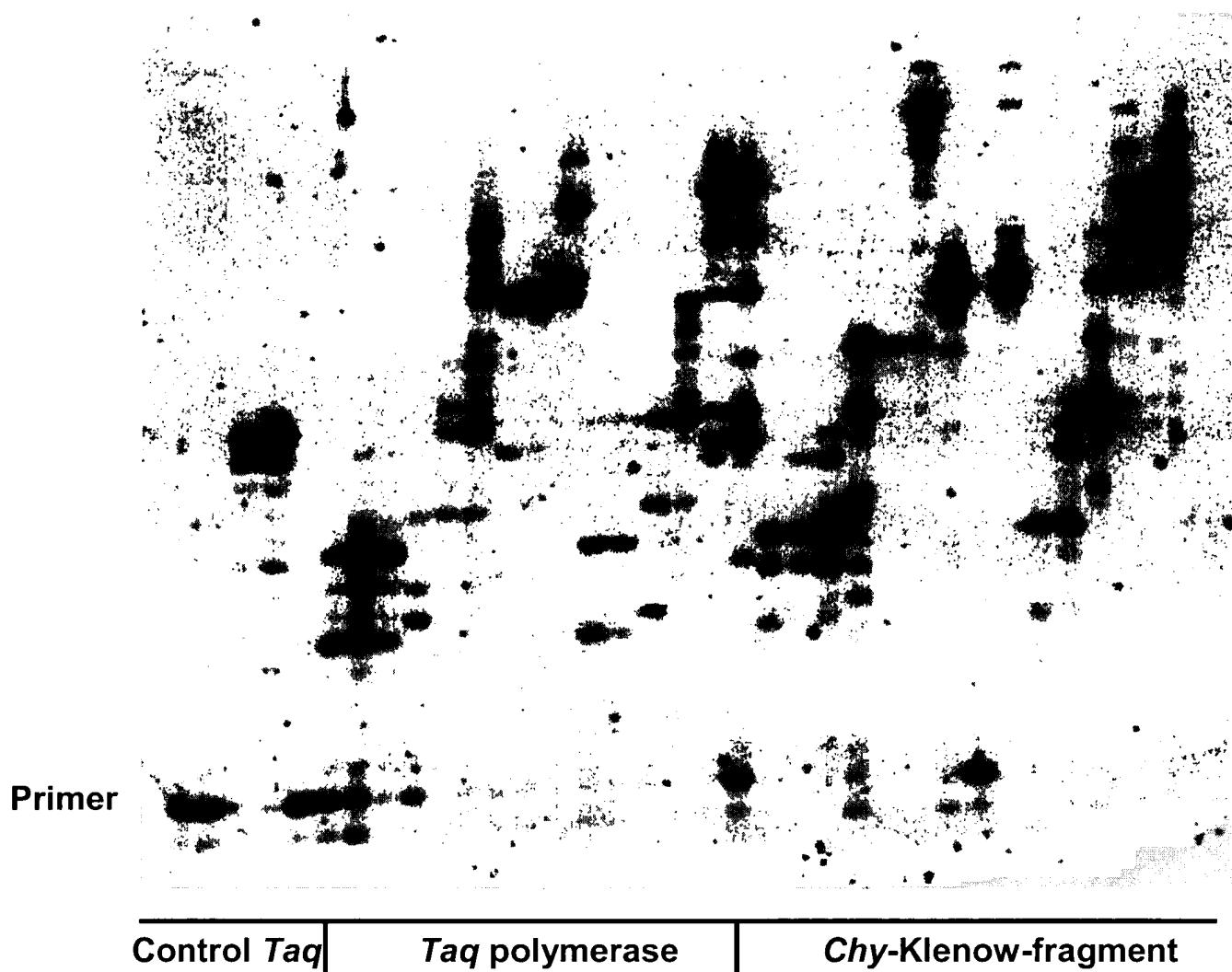


Fig. 6

1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35
2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34

Taq-pol control	Tgo exo- pol											
Template T4						Template T15						
natural dNTP's	Cy5-17-dUTP	Cy5-24-dUTP	Cy5-38-dUTP	MR121-8-dUTP	MR121-13-dUTP	MR121-24-dUTP	Cy5-17-dUTP	Cy5-24-dUTP	Cy5-38-dUTP	MR121-8-dUTP	MR121-13-dUTP	MR121-24-dUTP



Primer

10/019850

Fig. 6a

1 2 3 4 5 6 7 8 9 10 11 13 15 17
12 14 16 18



16/01983

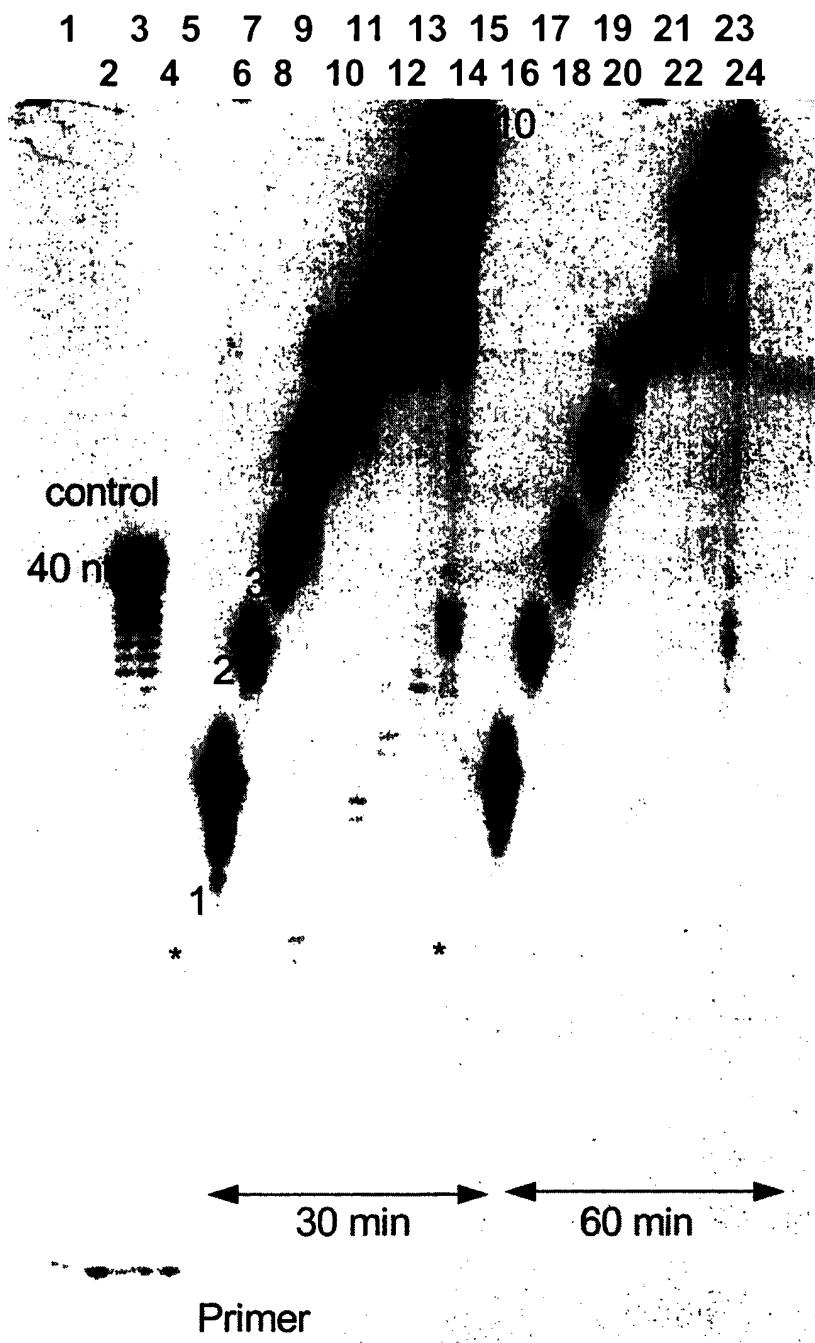
Fig. 7

1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35
 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36

<i>Taq-pol</i>	Vent	<i>Tgo</i>	Vent	<i>Tgo</i>	Vent		<i>Tgo</i>	Vent
0,1 unit	0,1 unit		0,5 unit		1u	0,5u		
cass - 1 1 5 10 -	cass 1	cass 5	cass 5	cass 10	cass 10	cass 10	cass 10	
control reactions	AAAAA	AAAAA	AAAAA	AAAAA	AAAAA	AAAAA	A A A A	AAA A
natural dNTP's	BBB	BBB	BBB	BBB	BBB	BBB	B B	EEE
	CC	CC	CC	CC	CC	CC	C	CC
	D	D	D	D	D	D	D	D

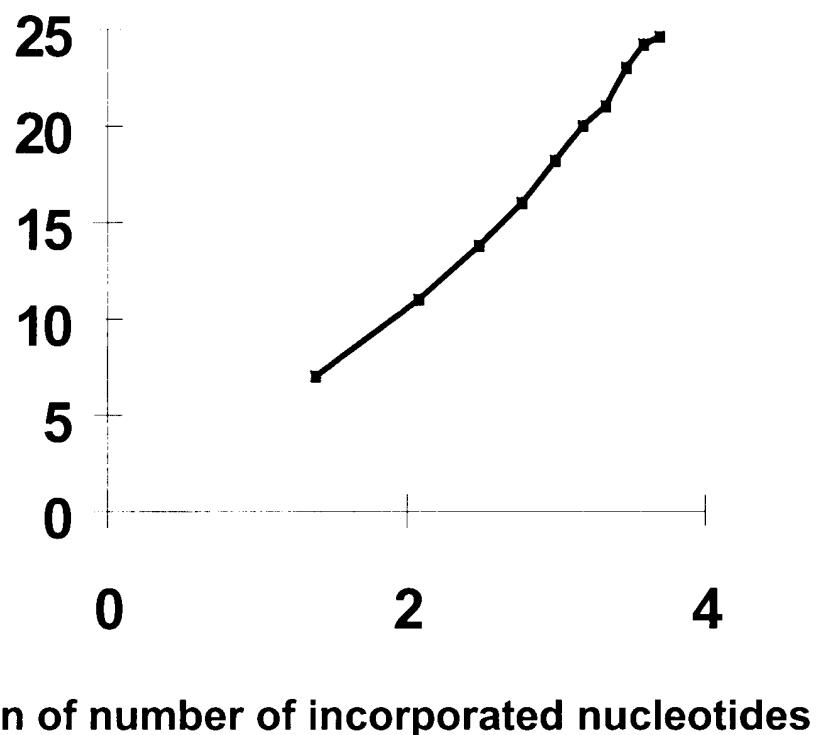


Fig. 8



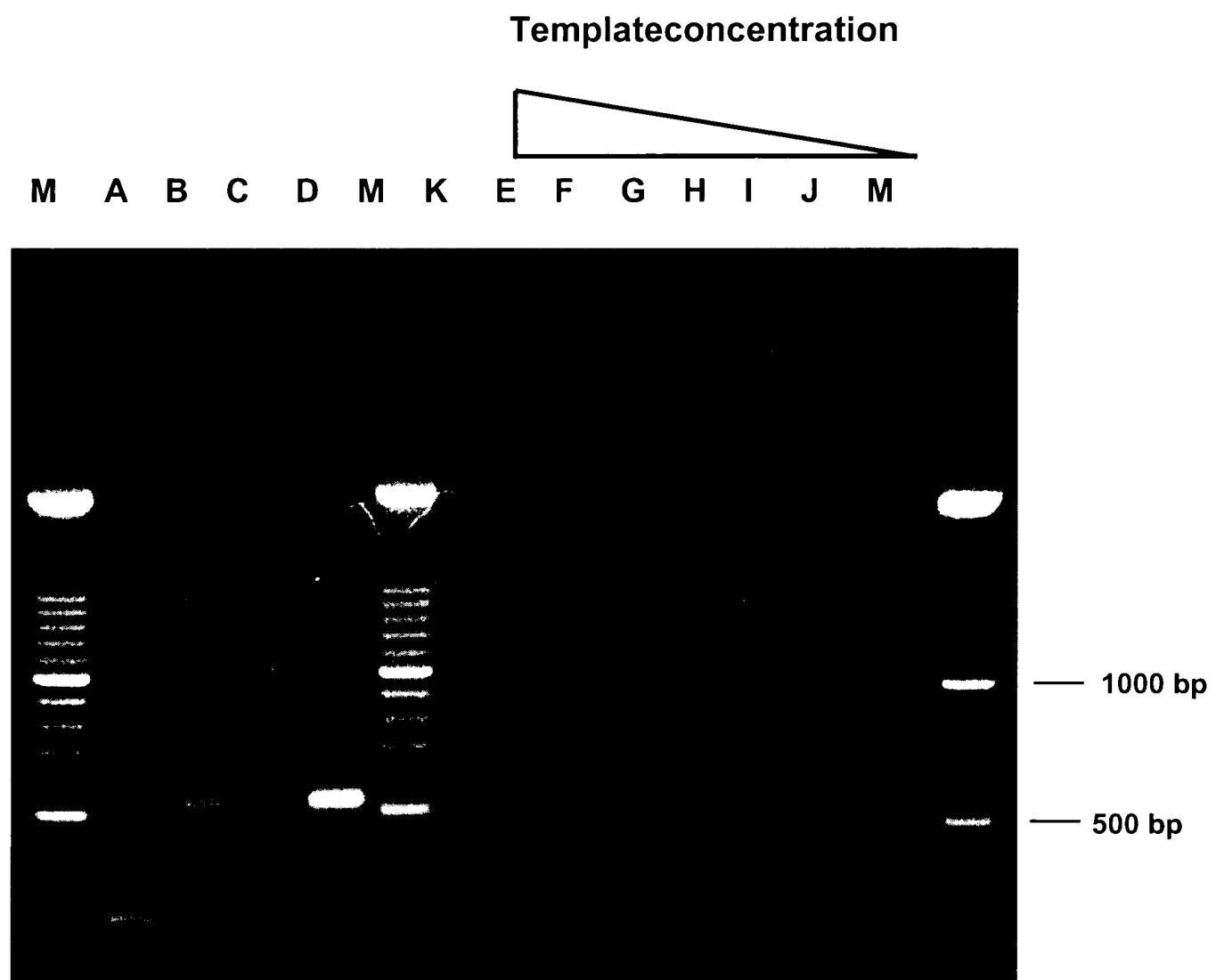
10/019850

Fig. 8a



10/019850

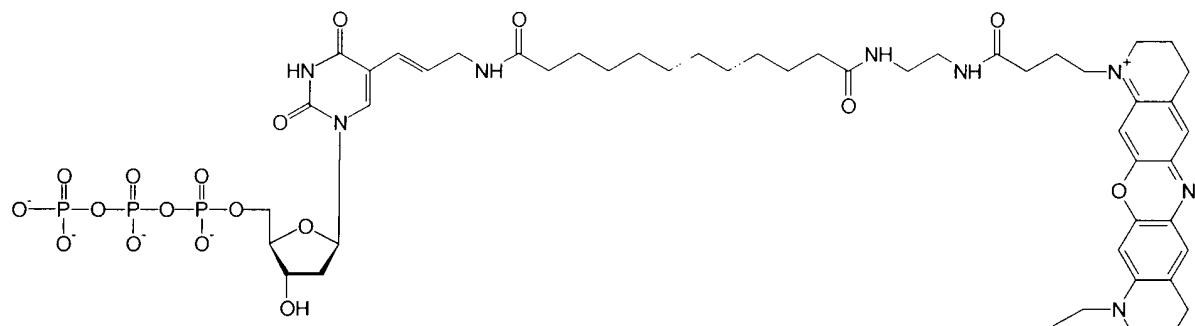
Fig. 9



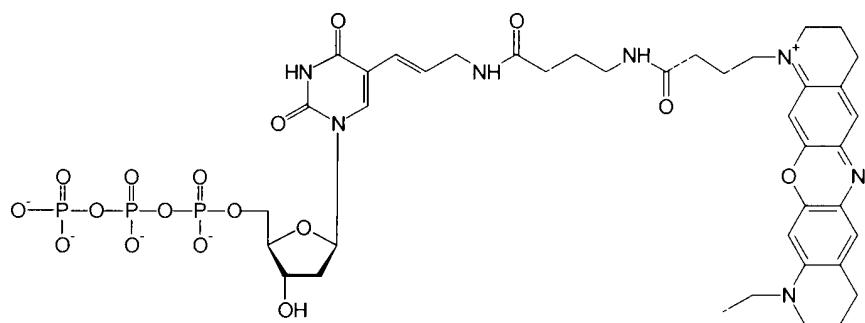
10.10.2023

Fig. 10

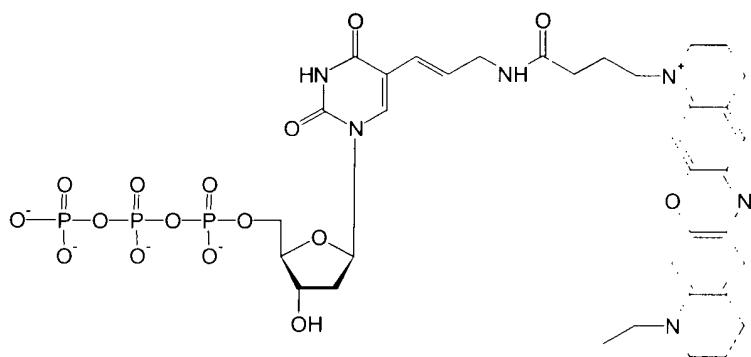
Formula of derivatives used:



MR-121-24-dUTP

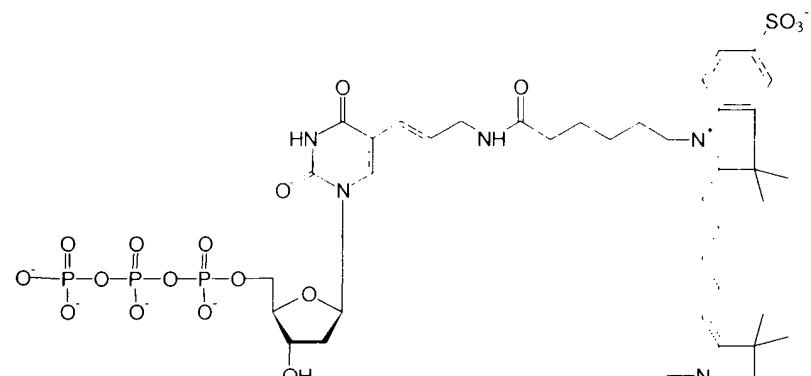


MR-121-13-dUTP

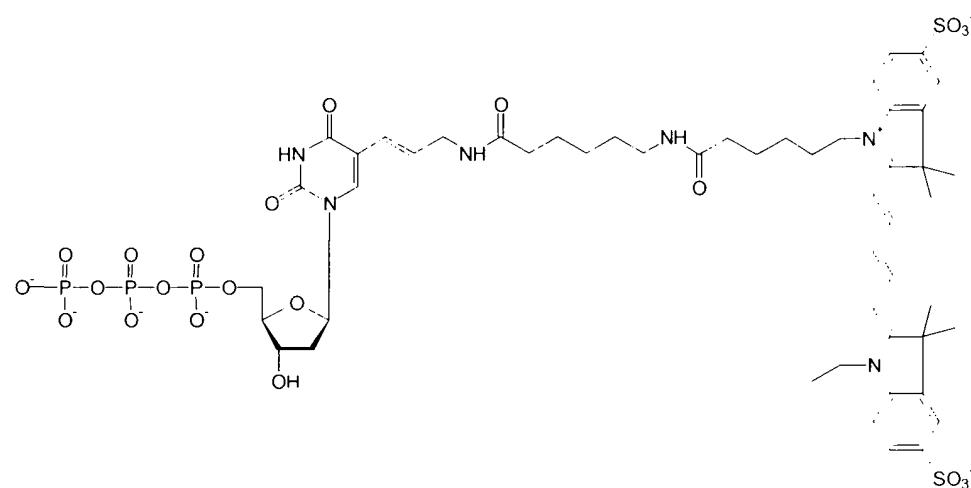


MR-121-8-dUTP

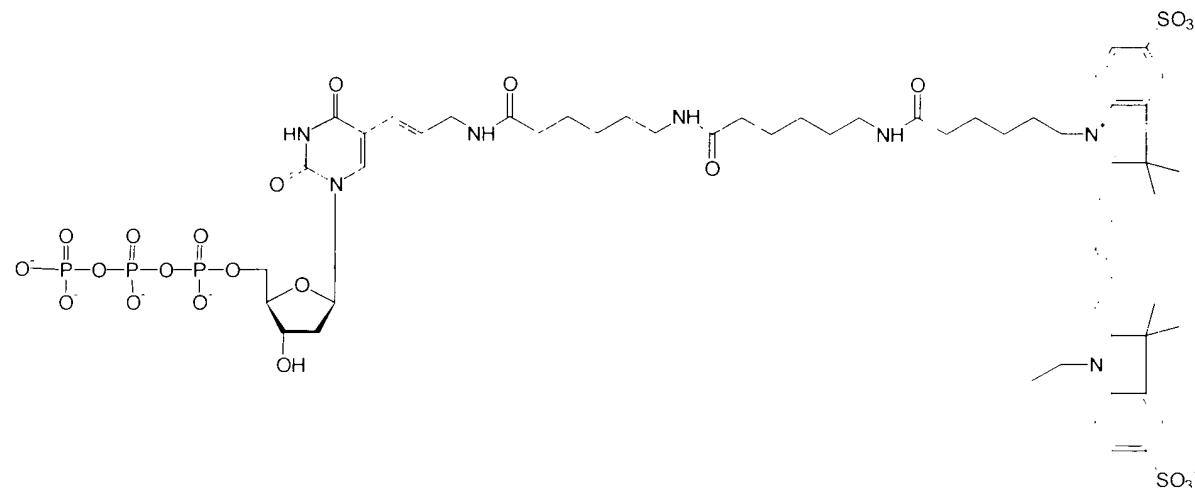
Fig. 11



Cy5-10-dUTP



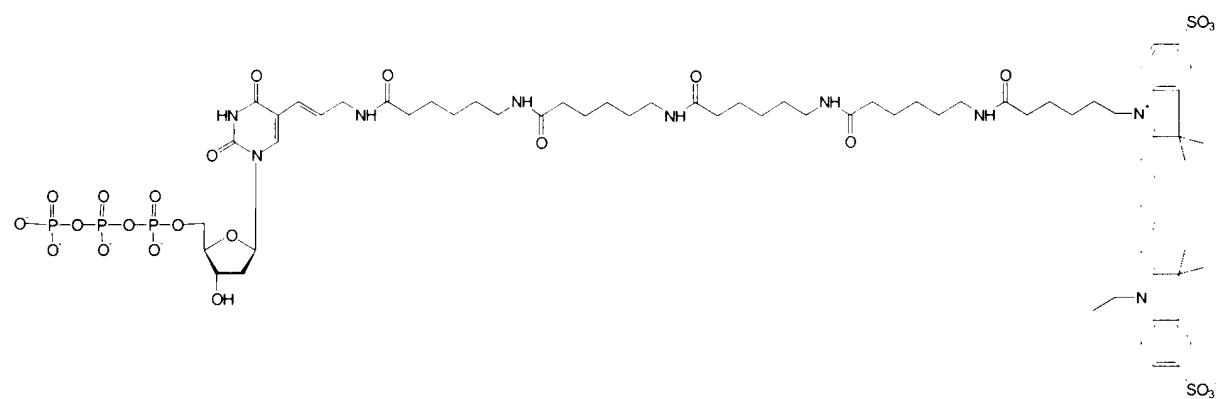
Cy5-17-dUTP



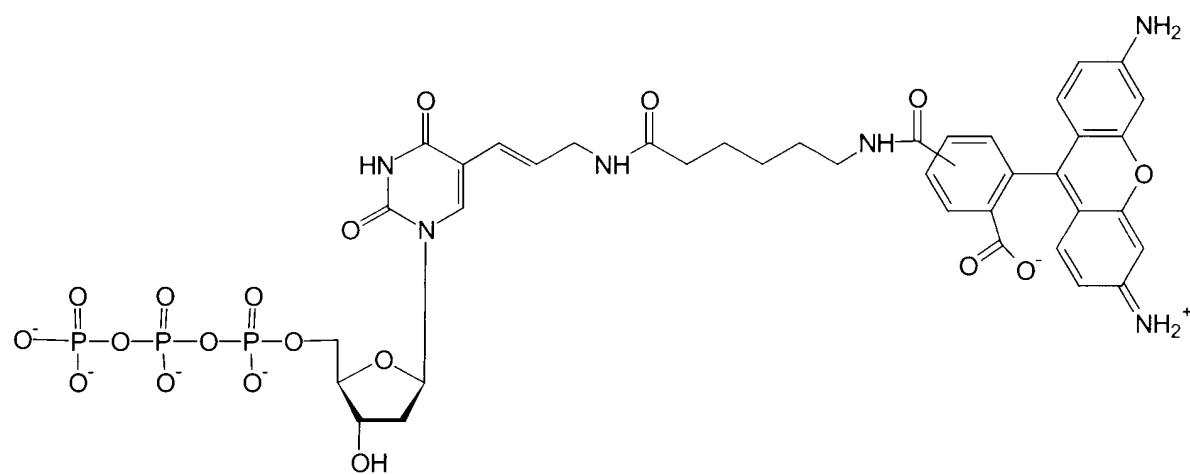
Cy5-24-dUTP

10/019850

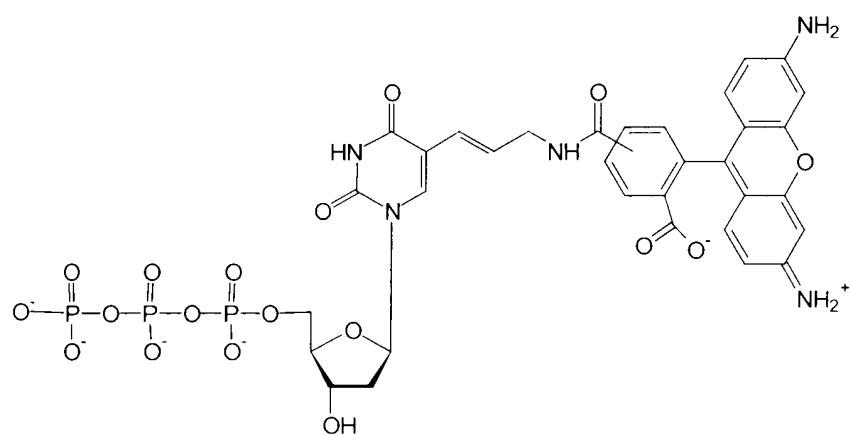
Fig. 12



Cy5-38-dUTP



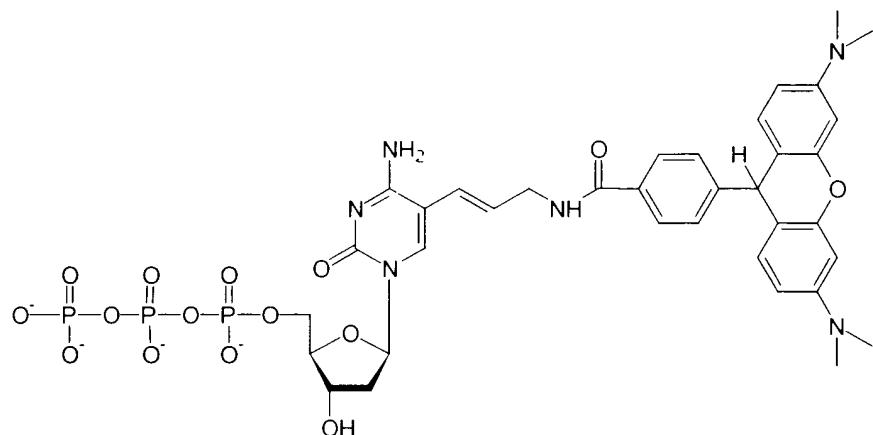
Rhodamin-green-x-dUTP



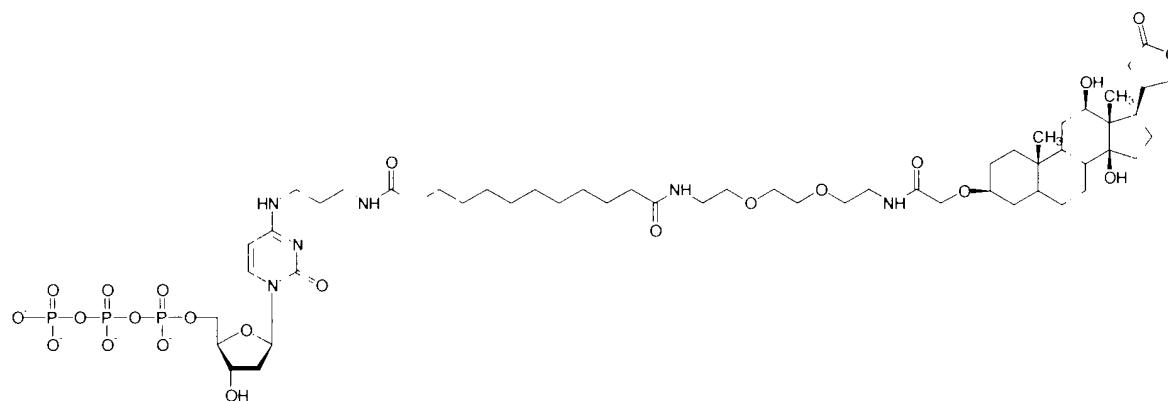
Rhodamin-green-dUTP

10/01/2018 10:19:00

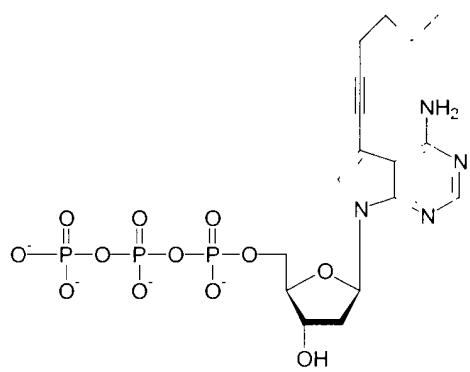
Fig. 13



Rosamin-dCTP

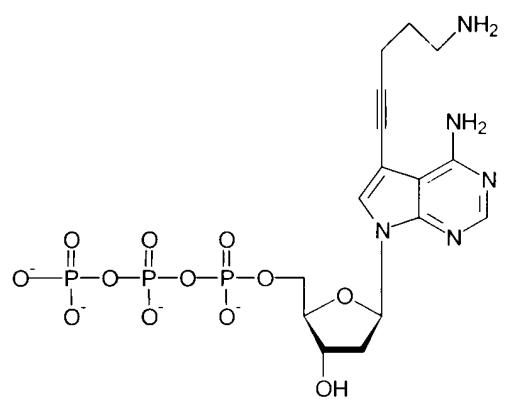


Dig-28-dCTP

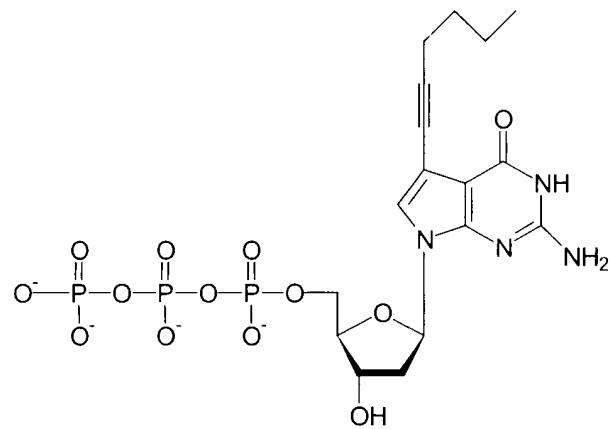
7-Hexinyl-7-desaza-dATP (Hex⁷c⁷A_d)

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Fig. 14



7-Aminopentinyl-7-desaza-dATP



7-Hexinyl-7-desaza-dGTP (Hex⁷c⁷G_d)

List of nucleoside derivatives

d-adenosine and adenosine-analogue derivatives

7-deaza-dATP

Digoxigenin-16-dATP

Fluorescein-15-dATP

Infrared₇₇₀-9-dATP

7-aminopentinyl-7-deaza-dATP

N¹-[(acetamido)-3,6-dioxa-octylamino]-2'-deoxy-formycin A-triphosphatebiotin-[N¹(amidoctyl-3,6-dioxa-amidoacetyl)]-2'-deoxcy-formycin A-triphosphate

d-formycin A-triphosphate

N¹-methyl-formycin-A-triphosphate

7-hexinyl-7-deaza-dATP

Digoxigenin-(7-aminohexinyl-7-deaza)-dATP

TMR-(7-aminohexinyl-7-deaza)-dATP

RhodaminGreen-(7-aminohexinyl-7-deaza)-dATP

d-cytidine- and cytidinanalogue derviatives

Cy5-dCTP

Digoxigenin-dCTP

ψ-iso-dCTP

Rosamin-dCTP

d-guanosine analogue derivatives

8-Aza-dGTP

8-Aza-7-bromo-7-deaza-dGTP

7-aminopentinyl-7-deaza-dGTP

Cy5-(7-aminobutinyl-7-deaza)-dGTP

7-hexinyl-7-deaza-dGTP

Fluorescein-(7-aminohexinyl-7-deaza)-dGTP

RhodaminGreen-(7-aminobutinyl-7-deaza)-dGTP

d-uridine and uridine analogue derviatives

Aminoallyl-dUTP

AMCA-6-dUTP

Biotin-16-dUTP

Bodipy-dUTP

Carboranyl-dUTP

Cy5-dUTP (with 10, 17, 24 and 38 atoms linker length)

DIG-11-dUTP

Fluorescein-12-dUTP

JF9-dUTP

IRD40-dUTP

JA53-dUTP

JA133-dUTP

JA218-dUTP

MR121-dUTP (with 8, 13 and 24 atoms linker length)

RN65-dUTP

RhodaminGreen-dUTP (without 5 and with 12 atoms spacer length)

ψ-dUTP

Biotin-N¹-ψ-dUTP

TMR-dUTP

Estradiol-dUTP

Other derivatives

[Imidazo-(2-amino-s-Triazin-4-on)]-2'-deoxyribosid-triphosphate

dTTP

Chinazolin-2'-deoxyribosid-triphosphate